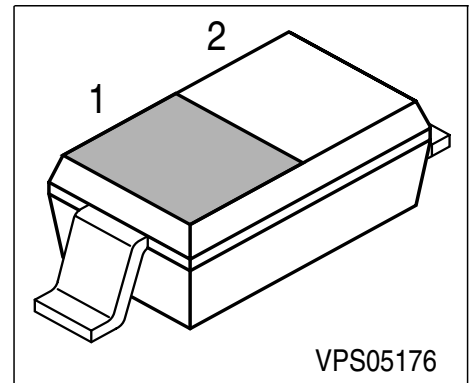


## Silicon Schottky Diode

- Low barrier diode for detectors up to GHz frequencies



**ESD:** Electrostatic discharge sensitive device, observe handling precaution!

| Type       | Marking | Pin Configuration |       | Package |
|------------|---------|-------------------|-------|---------|
| BAT 62-03W | L       | 1 = C             | 2 = A | SOD-323 |

### Maximum Ratings

| Parameter                                            | Symbol           | Value       | Unit             |
|------------------------------------------------------|------------------|-------------|------------------|
| Diode reverse voltage                                | $V_R$            | 40          | V                |
| Forward current                                      | $I_F$            | 40          | mA               |
| Total power dissipation, $T_S \leq 85^\circ\text{C}$ | $P_{\text{tot}}$ | 150         | mW               |
| Junction temperature                                 | $T_j$            | 150         | $^\circ\text{C}$ |
| Storage temperature                                  | $T_{\text{stg}}$ | -55 ... 150 |                  |

### Thermal Resistance

|                                  |                   |            |     |
|----------------------------------|-------------------|------------|-----|
| Junction - ambient <sup>1)</sup> | $R_{\text{thJA}}$ | $\leq 650$ | K/W |
| Junction - soldering point       | $R_{\text{thJS}}$ | $\leq 810$ |     |

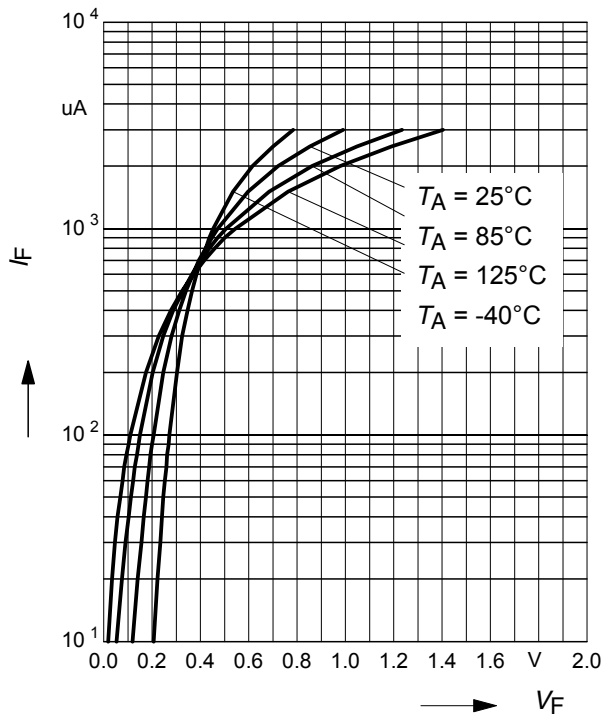
1) Package mounted on epoxy pcb 15mm x 16.7mm x 0.7mm

**Electrical Characteristics** at  $T_A = 25^\circ\text{C}$ , unless otherwise specified.

| Parameter                                                 | Symbol | Values |      |      | Unit          |
|-----------------------------------------------------------|--------|--------|------|------|---------------|
|                                                           |        | min.   | typ. | max. |               |
| DC characteristics                                        |        |        |      |      |               |
| Reverse current<br>$V_R = 40\text{ V}$                    | $I_R$  | -      | -    | 10   | $\mu\text{A}$ |
| Forward voltage<br>$I_F = 2\text{ mA}$                    | $V_F$  | -      | 0.58 | 1    | V             |
| AC characteristics                                        |        |        |      |      |               |
| Diode capacitance<br>$V_R = 1\text{ V}, f = 1\text{ MHz}$ | $C_T$  | -      | 0.35 | 0.6  | pF            |
| Case capacitance<br>$f = 1\text{ MHz}$                    | $C_C$  | -      | 0.1  | -    |               |
| Differential resistance<br>$V_R = 0, f = 10\text{ kHz}$   | $R_0$  | -      | 225  | -    | k $\Omega$    |
| Series inductance                                         | $L_s$  | -      | 1.8  | -    | nH            |

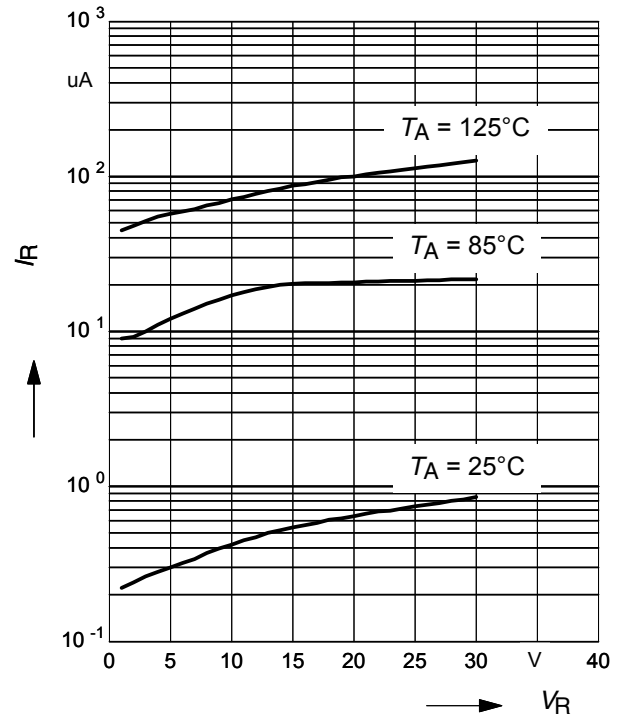
### Forward current $I_F = f(V_F)$

$T_A = \text{parameter}$



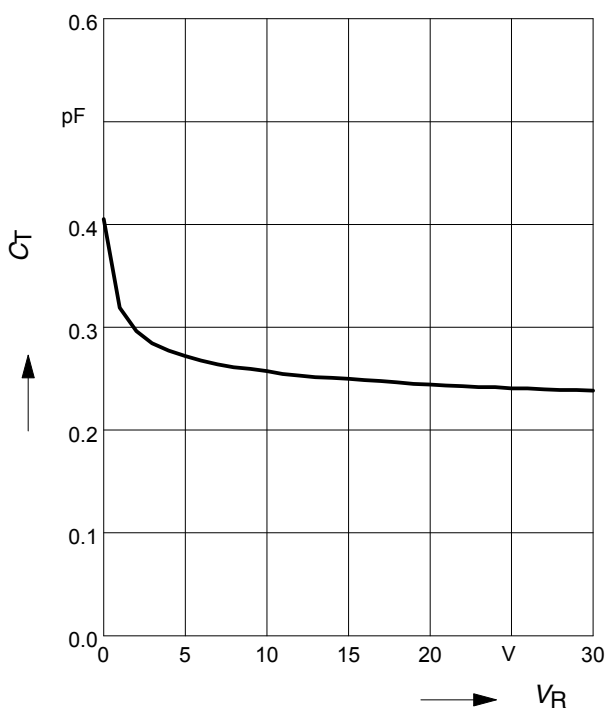
### Leakage current $I_R = f(V_R)$

$T_A = \text{Parameter}$



### Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



### Rectifier voltage $V_A = f(V_E)$

$f = 900\text{ MHz}$

$R_L = \text{parameter in } \Omega$

